

ABSTRACT OF THE DISCLOSURE

On a given substrate are successively formed a buffer layer, a recording layer made of carrier induced ferromagnetic material, a metallic electrode layer via an insulating layer, to complete a nonvolatile solid-state magnetic memory as an electric field effect transistor. For recording, a given electric field is applied to the recording layer via the metallic electrode layer so that the hole carrier concentration can be reduced to decrease the coercive force of the recording layer and thus, perform recording operation through the magnetic inversion of the recording layer with a relatively small external magnetic field.